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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,548	07/11/2006	Tomohisa Takahashi	26419-4US90PCT	6822
22850 7590 05/14/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER WEDDELL, ALEXANDER MARION				
ART UNIT		PAPER NUMBER		
1714				
NOTIFICATION DATE		DELIVERY MODE		
05/14/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

# Office Action Summary

**Application No.**

10/518,548

**Applicant(s)**

TAKAHASHI, TOMOHIKA

**Examiner**

ALEXANDER WEDDLE

**Art Unit**

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2010.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 5, 8 and 9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 2, 5, 8 and 9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 31, 2010 has been entered.

***Response to Arguments***

2. Applicant's arguments, see Remarks, pp. 4- 6, filed March 11, 2010, with respect to the rejection of Claims 1 and 2 under 35 U.S.C. 112, first paragraph have been fully considered and are persuasive. The rejection of Claims 1 and 2 under 35 U.S.C. 112, first paragraph of December 11, 2009 has been withdrawn.

3. Applicant's arguments, see Remarks, pp. 6, last paragraph filed March 11, 2010, with respect to the rejection of Claims 1, 2, and 5-9 under 35 U.S.C. 112, second paragraph have been fully considered and are persuasive. The rejection of Claims 1, 2 and 5-9 under 35 U.S.C. 112, second paragraph of December 11, 2009 has been withdrawn.

4. Applicant's arguments with respect to the claims under 35 U.S.C. 103(a) have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art ("AAPA") in view of Martellock (US 4,018,953).

Regarding Claim 1, AAPA teaches a method of manufacturing a honeycomb body having a sealing material layer on a peripheral portion of a pillar porous honeycomb member, comprising the steps of preparing a pillar-shaped porous honeycomb member; applying a paste-like sealing material onto a circumferential face of the pillar-shaped porous honeycomb member; and scraping the pillar-shaped honeycomb member with a plate-shaped scraper (Specification, Background Art, p. 1, line 16 – p. 2, line 4). AAPA is silent as to fitting a ring-shaped scraper onto the pillar-shaped member. Martellock (US'953) teaches a method of coating the exterior of a cylindrical substrate; the method is reasonably pertinent to the particular problem with

which the applicant was concerned of uniformly coating the circumferential face of the pillar-shaped member. The method of US'953 comprises steps of fitting a collar ("plate-shaped and ring-shaped scraper") to the cylinder, and moving (sliding) the collar down the outside of the cylindrical substrate to leave a thin coating of liquid on the outer surface (Abstract; col. 2, lines 40-68; col. 3, lines 1-18; Figs. 1, 3). It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the process of AAPA by substituting the plate-shaped scraper of AAPA with the plate-shaped, ring-shaped scraper of US'953, because US'953 suggests that a plate-shaped, ring-shaped scraper provides an extremely uniform coating (col. 4, lines 1-11).

The combination of references teaches moving the collar/ scraper down the full length of the cylinder to leave a thin coating of the liquid on the outer surface of the cylinder. The combination of references is silent as to moving the scraper in a second length direction, starting from the end face of the pillar-shaped member on the side opposite to the starting side of the first moving [position]. It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the process of the combination of references to perform the second moving step; for instance, to spread the applied coating more evenly or to apply a second coating of sealing material at the end of a first stroke.

Regarding Claim 2, AAPA suggests that a pillar-shaped body may have a cross-sectional shape perpendicular to the length direction which is other than a round shape (AAPA, Fig. 1, *prior art*).

Regarding Claim 5, AAPA is silent as to the plate-shaped, ring-shaped scraper. US'953 suggests a center member made from a material that is softer than the material of the pillar-shaped member (col. 3, lines 5-18; Fig. 3). It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the process taught by the combination of references by disposing a center member made from a material that is softer than the material of the honeycomb member inside the plate-shaped and ring-shaped scraper(s) in order to avoid scratching the material of the honeycomb structure while spreading the sealing material over the exterior of the structure.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art ("AAPA") in view of Martellock (US 4,018,953) as applied to claim 1 above, and further in view of Horikawa et al. (EP 449556).

Regarding Claim 8, AAPA teaches that the sealing material is highly viscous (Specification, p. 4, lines 5-7). The combination of references is silent as to a precise range of viscosity. EP'556 teaches a sealing material with a viscosity in the range of 10 to 20 Pa-s (100 to 200 poises) (p. 4, lines 1-10). It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the process taught by the combination of references by spreading a sealing material with a viscosity which overlaps the claimed range over the exterior of the structure, because EP'556 teaches that a material with a viscosity overlapping this range will spread uniformly over a ceramic honeycomb structure.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art ("AAPA") in view of Martellock (US 4,018,953) as applied to claim 1 above, and further in view of MacNeill (US 5,385,873).

Regarding Claim 9, AAPA in view of US'953 is silent as to inorganic filler and inorganic binder. MacNeill (US'873) teaches a sealing material comprising an inorganic filler and an inorganic binder (col. 2, lines 2-29). US'873 discloses that the inorganic binder is a high-aspect ratio (high length to diameter) vermiculite with an aspect ratio of about 10 or more. US'873 teaches that the ceramic fibers are long with small diameters, (*i.e.*, high aspect ratio). US'873 is silent as to the aspect ratio of the inorganic filler. It would have been obvious to a person of ordinary skill in the art at the time of invention to prepare the composition of US'873 with ceramic fibers with an aspect ratio within the range of that of the vermiculite with a reasonable expectation of success.

### ***Conclusion***

10. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER WEDDLE whose telephone number is (571) 270-5346. The examiner can normally be reached on Monday-Thursday, 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on (571)272-1303. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. W./

Examiner, Art Unit 1714

/Michael Kornakov/

Supervisory Patent Examiner, Art Unit 1714